Claims

[c1]   What is claimed is:

1.A method for sending a paging announcement to all

telephones in a roaming telephone network,

the roaming telephone network comprising:

a first local telephone group and a second local tele-

phone group each containing a plurality of telephones,

the first and second local telephone groups being re-

spectively connected to the Internet through first and

second dynamic IP addresses, and each of the tele-

phones in the first and second local telephone groups

being assigned a unique identifier; and

a main host connected to the Internet through a static IP

address, the main host capable of controlling voice

packet traffic over the Internet between the first local

telephone group and the second local telephone group;

the method comprising:

using one telephone in the roaming telephone network

to make a paging announcement;

transmitting the paging announcement from the paging

telephone to the main host; and

transmitting the paging announcement from the main

host to the first and second local telephone groups for

broadcasting the paging announcement to the roaming telephone network.

[c2]   2.The method of claim 1 wherein the main host transmits the paging announcement to all telephones in the roaming telephone network through the Internet.

[c3]   3.The method of claim 1 wherein the first and second local telephone groups respectively comprise a first local host and a second local host for receiving the paging announcement from the main host and for respectively transmitting the paging announcement to each telephone in the first and second local telephone groups.

[c4]   4.The method of claim 3 wherein all telephones in the first local telephone group and all telephones in the second local telephone group are directly connected to the first and second local hosts, respectively, and the first and second local hosts directly transmit the paging announcement to each telephone in the first and second local telephone groups, respectively.

[c5]   5.The method of claim 3 wherein all telephones in the first local telephone group and all telephones in the second local telephone group are respectively connected to the first and second local hosts through local networks, and the first and second local hosts respectively transmit

the paging announcement to each telephone in the first and second local telephone groups through the local networks.

[c6]   6. The method of claim 1 wherein the roaming telephone network further comprises a third local telephone group containing a plurality of telephones directly connected to the main host, and the main host directly transmits the paging announcement to each telephone in the third local telephone group.

[c7]   7. The method of claim 1 wherein each of the telephones in the first and second local telephone groups are respectively connected to the Internet through first and second IP sharing devices.

[c8]   8. The method of claim 7 wherein the telephones in the first and second local telephone groups are respectively connected to the first and second IP sharing devices through a network cable according to the IEEE 802.3 protocol.

[c9]   9. The method of claim 7 wherein the telephones in the first and second local telephone groups are wirelessly connected to the first and second IP sharing devices according to an IEEE 802.11x protocol, respectively.